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18            OCT 26 1999            MR. HALSTEAD: For the record, I  
19 am Bob Halstead, transportation advisor for the  
20 Nevada Agency for Nuclear Projects.

1... 21                    This morning Nevada commented on the way  
22 in which the DEIS addresses the impacts of a

...1 1 successful transportation sabotage event found at  
2 pages 6-33 to 6-34. The DEIS estimates a population  
3 dose of 31,000 person-rem and 15 fatal cancers can  
4 result from an attack on a truck cask and that 4900  
5 person-rem population dose and 2.4 cancers would  
6 result from an attack on a rail cask.

7 Nevada believes the human health effects  
8 could be significantly larger, at least by a factor  
9 of ten, based on the analysis in the Sandia report,  
10 which is referenced in the DEIS, and Nevada also  
10 11 believes that there would be significant adverse  
12 economic impacts, which, unfortunately, DOE choose  
13 not to address in the draft DEIS.

14 Tonight we discuss the measures that  
15 Nevada has asked the Nuclear Regulatory Commission  
16 to adopt to better protect shipments against  
17 transportation -- against terrorism and sabotage  
18 efforts directed at the transportation system.

19 During the question and answer period,  
20 Mr. Abe Van Luik made a very important statement in  
21 response to a question about transportation safety  
22 when he said, "We will do whatever the NRC says we

1 need to do."

2...

2 This is well known to those of us who are  
3 concerned about transportation safety and realize  
4 that DOE is not the only party responsible for  
5 making important transportation safety and security  
6 decisions, and that is why the State of Nevada has  
7 petitioned the Nuclear Regulatory Commission not  
8 only to undertake the comprehensive risk assessment  
9 that I discussed this morning, but also the State of  
10 Nevada has specifically requested immediate action  
11 to amend the regulations to better protect these  
12 shipments.

13 Now, it is unclear to us whether the  
14 Commission in its wisdom will be able to complete  
15 the rulemaking it has begun before the Department of  
16 Energy completes its final draft EIS. Both of these  
17 agencies have been known to move at geologic speed.

18 Therefore, Nevada submits for the record  
19 tonight an overview of the regulatory amendments  
20 requested in the petition and, regardless of the  
21 action taken by the NRC, Nevada urges the Department  
22 of Energy to adopt these recommendations as

...2     1     transportation planning guidelines and we further  
         2     urge the Department to incorporate them into the  
         3     final environmental impact statement.

3...     4                 First, the State of Nevada has asked the  
         5     NRC to reexamine the design basis threat for  
         6     radiological sabotage. The current regulations  
         7     require licensees to design safeguard systems which  
         8     can protect shipments against attacks involving  
         9     several well-trained and dedicated individuals,  
10     hand-held automatic weapons, a four-wheel drive land  
11     vehicle and hand-carried equipment, including  
12     incapacitating agents and explosives. The  
13     regulations also specify that the attackers may  
14     receive insider; that is, employee assistance, and  
15     utilize a four-wheel drive land vehicle bomb.

16                 The petitioner requests that the  
17     Commission -- in this case the petitioner is the  
18     State of Nevada. We have requested that the  
19     Commission clarify the meaning of hand-carried  
20     equipment within the current design basis. As I  
21     explained this morning, we believe that that  
22     definition currently involves a broad range of

...3 1 currently available anti-tank weapons, military and  
2 civilian explosives.

3 Nevada has further requested that the  
4 Commission consider amending the design basis threat  
5 to include use of devices which are larger than  
6 specified in the rule and what we consider  
7 non-civilian vehicles.

8 Specifically, Nevada is concerned about  
9 the possibility of attacks involving stolen or  
10 otherwise diverted military weapons systems, given  
11 the number and nature of military installations in  
12 Nevada and along the transportation corridors to  
13 Nevada.

4... 14 Secondly, Nevada has requested that the  
15 Commission reexamine the definition of radiological  
16 sabotage. As it is currently stated, radiological  
17 sabotage implies a judgment by the Commission  
18 regarding whether the consequences of the action  
19 would actually directly or indirectly endanger the  
20 public health and safety by exposure to radiation.

21 Nevada believes that definition should  
22 focus on the intent of an action rather than a

...4

1 judgment by the Commission on whether it would be  
2 successful or not, and Nevada further believes the  
3 definition should be amended to explicitly include  
4 deliberate actions which cause or are intended to  
5 cause economic damage or social disruption,  
6 regardless of the extent to which public health and  
7 safety are actually endangered by exposure to  
8 radiation.

9           This is an important distinction, because  
10 an incident involving an intentional release of  
11 radioactive materials, especially in a heavily  
12 populated area, could cause widespread social  
13 disruption and substantial economic losses even if  
14 there were no immediate human casualties and few or  
15 any projected latent cancer fatalities.

5...

16           Thirdly, Nevada has asked the Commission  
17 to reexamine the requirements for advance approval  
18 of routes. Now, currently the Commission has  
19 regulations requiring potential carriers and  
20 shippers to submit their routes for approval, and in  
21 1980 and since 1980 the NRC has been using a  
22 regulatory guidance document which identifies five

5... 1 types of routes that receive special evaluation,  
2 routes through highly populated areas, routes which  
3 would place the shipment or escort vehicle in a  
4 significantly tactically disadvantageous position,  
5 for example, tunnels which would prevent the escort  
6 vehicle from maintaining continuous surveillance of  
7 the shipment vehicle, routes with marginal safety  
8 design features, for example, two-lane routes, all  
9 too common, unfortunately, in rural Nevada, absence  
10 of guardrails, et cetera, routes with limited rest  
11 and refueling locations, also abundant in rural  
12 Nevada, and routes where responses by local law  
13 enforcement agencies when requested would not be  
14 swift or timely, also, unfortunately, common in  
15 rural Nevada.

16 Nevada believes that the Commission should  
17 specifically require shippers and carriers to  
18 identify primary and alternative routes which  
19 minimize highway and rail shipments through heavily  
20 populated areas. We are cognizant that this will  
21 force large numbers of shipments into rural areas  
22 where these other adverse conditions pertain.

...5 1                   We, therefore, also believe the Commission  
2                   should adopt the route selection criteria in NUREG  
3                   0561 as part of the regulations that specifically  
4                   require shippers and carriers to minimize the use of  
5                   routes which fail to comply with those criteria.

11... 6                   Fourthly, Nevada has requested that the  
7                   NRC amend the escort requirements; that is, armed  
8                   escort requirements, for shipments by truck. Nevada  
9                   requests that the Commission amend its regulations  
10                  to eliminate the differential armed escort  
11                  requirements based on population.

12                  The current regulations require armed  
13                  escorts only for shipments within heavily populated  
14                  areas as defined by the NRC. As a matter of equity,  
15                  Nevada believes that the residents of small towns,  
16                  small cities, rural areas along shipment routes as a  
17                  group are entitled to the same level of protection  
18                  as residents of heavily populated areas.

6... 19                  As a practical matter, there are many  
20                  Nevada locations outside of designated heavily  
21                  populated areas, especially in Elko, Lincoln, Nye  
22                  and White Pine County, with significant population



...6 1 concentrations within one half mile of a potential  
2 shipment route.

3 Many difficult-to-evacuate facilities,  
4 such as schools, hospitals, industrial plants,  
5 shopping centers, hotels and resorts are located  
6 immediately adjacent to potential truck routes in  
7 small cities and towns. Several major water  
8 supplies and outdoor recreation facilities with high  
9 seasonal population densities are also located in  
10 close proximity to potential truck routes in  
11 Nevada.

...11 12 Nevada further requested that the  
13 Commission consider increasing the armed escort  
14 requirement for truck shipments. At a minimum, the  
15 Commission should consider requiring at least one  
16 armed escort each, in a lead vehicle and in a chase  
17 vehicle, with one escort being a state or local law  
18 enforcement officer.

19 Nevada also believes the Commission should  
20 consider the armed escort requirements for strategic  
21 special nuclear materials, which involve seven armed  
22 escorts in two escort vehicles.

7... 1                   Fifth, Nevada has requested that the  
 2       Commission amend the armed escort requirements for  
 3       shipments by rail, again, to eliminate the  
 4       differential armed escort requirements for rural and  
 5       urban areas.

6                   In Nevada and in other western states many  
 7       small cities and towns grew up around rail lines and  
 8       rail service facilities in these communities, and  
 9       there are a number in Elko, Eureka, Lander, Lincoln,  
 10      Nye and White Pine counties. There are significant  
 11      population concentrations within one half mile of a  
 12      potential rail route.

13                  In Nevada and other western states main  
 14      line railroads are frequently located in river  
 15      valleys near major water supplies. Additionally,  
 16      main line railroads of national economic  
 17      significance may in and of themselves be attractive  
 18      as targets for terrorists, as attractive as  
 19      locations in urban areas. The Union Pacific Salt  
 20      Lake City-Los Angeles main line through southern  
 21      Nevada, potentially the primary shipment route to  
 22      Yucca Mountain, is such a rail route of national

7... 1 economic significance.

2 Nevada has further requested that the  
3 Commission consider substantially increasing the  
4 armed escort requirements for rail shipments. At a  
5 minimum, we believe the Commission should consider  
6 requiring at least two armed escorts in an escort  
7 vehicle in addition to the two armed escorts aboard  
8 the train.

9 Now, based on recent experience with the  
10 foreign research reactor spent fuel return  
11 shipments -- and I should add that Janice Owens,  
12 speaking for Edlow Transportation Services, this  
13 morning gave a very beautiful statement talking  
14 about the extra regulatory safety requirements which  
15 have been taken on these shipments.

16 One of those requirements was continuous  
17 realtime aircraft surveillance in certain rail  
18 segments through extremely rough terrain and through  
19 heavily populated areas. We believe that should be  
20 considered on a location-by-location basis, and,  
21 further, we have asked the Commission to consider  
22 the armed escort requirement for special strategic

...7 1 materials, which is seven armed escorts stationed in  
2 a variety of configurations aboard the train and in  
3 one or more escort vehicles. And I am about to wrap  
4 up, Barry. |

8 5 | Sixth, the State of Nevada has asked the  
6 Commission to adopt additional planning and  
7 scheduling requirements already required for  
8 shipments of special nuclear materials.

9 Very simply, the NRC currently requires  
10 for these shipments that "shipments shall be  
11 scheduled to avoid regular patterns and pre-planned  
12 to avoid areas of natural disaster or civil  
13 disorders, such as strikes or riots." It is  
14 certainly common sense that the same requirement  
15 should apply to spent nuclear fuel shipments. |

9... 16 | Seventh, and our final recommendation,  
17 Nevada has asked the Nuclear Regulatory Commission  
18 to require that all rail shipments be made in  
19 dedicated trains. Given the fact that the  
20 Department is planning more than 12,000 and under  
21 some scenarios as many as 20,000 cask shipments of  
22 spent nuclear fuel by rail, Nevada believes that the

9... 1 performance objectives set forth in 10 CFR  
2 73.37(a)(1) can only be met by requiring that all  
3 shipments be made in dedicated trains, and I won't  
4 bore you by reading that provision of the  
5 regulations.

6 Nevada, along with other stakeholders,  
7 including the Association of American Railroads, has  
8 long advocated mandatory use of dedicated trains for  
9 all rail shipments in order to promote safety. The  
10 U.S. Nuclear Waste Technical Review Board recently  
11 stated, "One possible approach to maximizing safety  
12 and preventing undue burdens on the nationwide  
13 railroad network could be the use of dedicated  
14 trains for transporting spent nuclear fuel."

15 While continuing to believe that the use  
16 of dedicated trains should be mandatory, Nevada  
17 acknowledges arguments that have been made that  
18 dedicated trains may actually pose some  
19 disadvantages from a physical protection  
20 standpoint. For example, it has been argued that  
21 dedicated trains may facilitate target tracking and  
22 attack scheduling by potential adversaries and that

...9 1 multiple casks in a short train may actually  
2 facilitate target selection and weapon delivery.

3 Nevada remains convinced that mandatory  
4 shipment in dedicated trains is a good idea for both  
5 safety and security reasons and should be adopted.  
6 However, we acknowledge these arguments and have  
7 asked the Commission to consider the advantages and  
8 disadvantages of shipping spent nuclear fuel in  
9 dedicated trains, assuming both current and enhanced  
10 requirements for rail shipment and armed escorts.

11 MR. LAWSON: How are we doing?

12 MR. HALSTEAD: Thank you very  
13 much.

14 MS. BOOTH: Thank you.

15 MR. LAWSON: Our next speaker  
16 will be Dennis Nester, to be followed by Robert  
17 Tiller.

18 And do I understand that Clarke Cooper is  
19 now here? You will be the fourth speaker.